

Application No.: 10/026,110

REMARKS/ARGUMENTS***Status of the Claims***

Claims 1-7, 13-22, 28-37 and 43-45 remain pending in the present application. Claims 1, 16 and 31 have been amended. Support for this amendment can be found through the specification and more specifically in for example, page 23, line 19 of the specification. Applicant asserts that no new matter is presented by these amendments and respectfully request entry of the same.

Information Disclosure Statement

Applicant hereby submits an Information Disclosure Statement with this document.

Rejections under 35 U.S.C. § 101 should be withdrawn.

Claims 1-7 and 13-15 are again rejected as allegedly directed to non-statutory matter because the claimed invention lacks a physical result. Applicant respectfully disagrees, however, for the purpose of expediting the allowance of claims, Applicant has amended claims 1, 16, and 31 to recite the step of "outputting results of the analyzing step". Support for this amendment can be found through the specification and more specifically in for example, page 23, line 19. Therefore, no new matter has been added with these amendments. Withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 112 first paragraph should be withdrawn.

Claims 1-7, 13-22, 28-37 and 43-45 are rejected as allegedly lack of utility or a well established utility. Examiner states that one of the skilled in the art would not know what to do with the results of the analysis. Applicant respectfully disagrees, however, for

Application No.: 10/026,110

the purpose of expediting allowable claims, Applicant has amended claims 1, 16, and 31 to add the step of "outputting results of the analyzing step". Support for this amendment can be found through the specification and more specifically in for example, page 23, line 19. Therefore, no new matter has been added with these amendments. Withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 103 should be withdrawn.

Claims 1-4, 6, 13-19, 21, 28-34, 36, and 43-45 are rejected as allegedly being unpatentable over Zheng et al (US 6,263,287) in view of the Gene Ontology Consortium; hereinafter GOC (Nature Genetics (May 2000) Volume 25, pages 25-29).

Applicant respectfully disagrees. The primary reference, Zheng et al., discusses methods for clustering gene expression data. It fails to disclose or suggest analyzing the expression levels according to the selected at least one *biological characteristic based upon gene ontology*. More specifically, as claimed in the present invention, the biological characteristics comprise genomic information about the products of the genes; and biological function of the genes. For example, in the abstract, Zheng describes systems utilizing clustering algorithms, which may be used to correlate temporal patterns of *gene expression*. However, the Examiner does not point out where in Zheng it is disclosed a selection with regard to at least one *biological characteristic*.

GOC (2000) discusses various aspects of gene ontology, but does not teach or suggest selecting at least one *biological characteristic* for gene expression analysis.

Application No.: 10/026,110

Since the cited references, alone or in combination, do not teach, or suggest the presently claimed invention, Applicant respectfully submit that the rejection of claims 1-7, 13-22, should be withdrawn.

Claims 5, 20, and 35 are rejected as allegedly being unpatentable over Zheng et al (US 6,263,287) and the Gene Ontology Consortium hereinafter GOC (Nature Genetics (May 2000) Volume 25, pages 25-29) as applied to claims 1-4, 6, 13-19, 21, 28-34, 36, and 43-45 above, in view of ROCKE et al (US 2002/0111742).

Rocke et al. discusses methods for classifying high dimensional data. It fails to disclose or suggest analyzing the expression levels according to the selected at least one *biological characteristic*. Since the cited references, alone or in combination, do not teach, or suggest the presently claimed invention, Applicant respectfully requests that the rejection of claims 5, 20, and 35 should be withdrawn.

Claims 1-4, 6-7, 13-19, 21-22, 29-34, 36-37 and 43-45 are rejected as allegedly being obvious over GARNER et al (US 2003/0033290) and OGATA et al (Nucleic acids Res. (1999) vol. 27, no. 1, pp 29034) in view of the Gene Ontology Consortium; hereinafter GOC (Nature Genetics (May, 2000) Volume 25, pages 25-29).

Applicants respectfully disagree. The primary reference, Garner et al., discusses methods and computer-based systems for designing microarrays. Garner et al., discloses the clustering algorithms that use the expression level data to group various elements of an array. However, it fails to disclose or suggest analyzing the expression levels according to the selected at least one *biological characteristic based upon gene ontology*.

Application No.: 10/026,110

Since the cited references, alone or in combination, do not teach, or suggest the presently claimed invention, Applicant respectfully requests that the rejection of claims 1-4, 6-7, 13-19, 21-22, 29-34, 36-37 and 43-45 should be withdrawn.

CONCLUSION

For these reasons, Applicants believe all pending claims are now in condition for allowance. If the Examiner has any questions pertaining to this application or feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 731-5000.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account 01-0431.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

By: Leticia R. Block
Leticia R. Block Reg. No. 50,167

Date: Feb. 4, 2006

Customer No.: 22886
Legal Department
Affymetrix, Inc.
3380 Central Expressway
Santa Clara, CA 95051
Tel: 408/731-5000
Fax: 408/731-5392